

IN THE CLAIMS:

Claims 1-4, and 6-27 have been amended herein. All of the pending claims 1 through 27 are presented below. This listing of claims will replace all prior versions and listings in the application. Please enter these claims as amended.

1. (Currently Amended) A system for applying adhesively coated material to at least a first portion and a second portion of a semiconductor die mounting site of a first leadframe ~~and~~ and a second leadframe of a plurality of leadframes for attachment of a semiconductor device thereto in a wire bonding apparatus, ~~said the~~ system comprising:

a first source for supplying a first length of adhesively coated material at a first location of ~~said the~~ at least a first portion of ~~said the~~ semiconductor die mounting site of ~~said the~~ first leadframe of ~~said the~~ plurality of leadframes ~~form~~ in a continuous manner;

a second source for supplying a second length of adhesively coated material at ~~a the~~ the second location of ~~said the~~ at least a second portion of a semiconductor die mounting site of ~~a the~~ second leadframe of ~~said the~~ plurality of leadframes in a continuous manner;

indexing apparatus including:

apparatus for moving ~~said the~~ plurality of leadframes relative to ~~said an~~ application

apparatus in a single leadframe by single leadframe movement ~~of ~~said plurality of~~ leadframes~~ in a continuous manner; and

application apparatus for receiving ~~said the~~ plurality of leadframes in a leadframe-by-leadframe sequence in a continuous manner, ~~said the~~ plurality of leadframes having a removable portion for engagement by a portion of ~~said the~~ application apparatus, ~~said the~~ application apparatus for receiving ~~said the~~ first length of adhesively coated material at ~~said the~~ first location of ~~said the~~ at least a first portion of ~~said the~~ semiconductor die mounting site of ~~said the~~ first leadframe of ~~said the~~ plurality of leadframes and for receiving ~~said the~~ second length of adhesively coated material at ~~said the~~ second location of ~~said the~~ at least a portion of ~~said the~~ semiconductor die mounting site of ~~said the~~ second leadframe of ~~said the~~ plurality of leadframes, ~~said the~~ application apparatus having cutting apparatus for

cutting a first increment of ~~said the~~ first length of adhesively coated material and for applying ~~said the~~ first increment to the first location of ~~said the~~ at least a first portion of ~~said the~~ semiconductor die mounting site of ~~said the~~ first leadframe of ~~said the~~ plurality of leadframes upon indexing to ~~said the~~ first location and for cutting a second increment of ~~said the~~ second length of adhesively coated material and applying ~~said the~~ second increment to ~~said the~~ second location of ~~said the~~ at least a second portion of ~~said the~~ semiconductor die mounting site of ~~said the~~ second leadframe of ~~said the~~ plurality of leadframes upon indexing to ~~said the~~ second location, ~~said the~~ application apparatus including:

a first cutting structure located at the first location having a first cutting die, the first cutting structure for receiving ~~said the~~ first length of ~~said the~~ adhesively coated material and for receiving ~~said the~~ first cutting ~~die die~~, the first cutting die movable relative to ~~said the~~ first cutting structure for receiving ~~said the~~ first length of ~~said the~~ adhesively coated material;

operation apparatus ~~positioned~~ positionable to move ~~said the~~ first cutting die relative to ~~said the~~ first cutting structure for forming ~~said the~~ first increment and for urging ~~said the~~ first increment against ~~said the~~ first location of ~~said the~~ at least a first portion of ~~said the~~ semiconductor die mounting site of ~~said the~~ first leadframe of ~~said the~~ plurality of ~~leadframe~~ leadframes;

a second cutting structure located at the second location having a second cutting die, ~~said the~~ second cutting die structure configured for receiving ~~said the~~ second length of ~~said the~~ adhesively coated material and for receiving ~~said the~~ second cutting die, the second cutting die movable relative to ~~said the~~ second cutting structure for receiving ~~said the~~ second length of ~~said the~~ adhesively coated material; and

operation apparatus ~~positioned~~ to move ~~said the~~ second cutting die relative to ~~said the~~ second cutting structure for forming ~~said the~~ second increment and for urging ~~said the~~ second increment against ~~said the~~ second location of ~~said the~~ at least a second

portion of ~~said~~ the semiconductor die mounting site of ~~said~~ the first second leadframe of ~~said~~ the plurality of ~~leadframe~~ leadframes.

2. (Currently Amended) The system of claim 1, wherein ~~said~~ the first source includes:  
a first adhesively coated material supply for supplying ~~said~~ the first length of adhesively coated material.

3. (Currently Amended) The system of claim 2, wherein ~~said~~ the second source includes:  
a second adhesively coated material supply for supplying ~~said~~ the second length of adhesively coated material.

4. (Currently Amended) The system of claim 1, wherein ~~said~~ the application apparatus includes apparatus for receiving a plurality of leadframes connected together ~~one to another~~.

5. (Original) The system of claim 4, wherein ~~said~~ the application apparatus further includes apparatus for receiving and for positioning a plurality of leadframes having a removable edge with drive perforations formed therein.

6. (Currently Amended) The system of claim 5, further comprising a controller in electrical communication with ~~said~~ the operation apparatus for sending and receiving operation signals thereto, and wherein ~~said~~ the operation apparatus includes:  
a first die moving mechanism positioned relative to ~~said~~ the first cutting die for moving ~~said~~ the first cutting die toward a leadframe of ~~said~~ the plurality of leadframes, ~~said~~ the first die moving mechanism being in electrical communication with ~~said~~ the controller for receiving ~~said~~ the operation signals therefrom to cause ~~said~~ the first die moving

mechanism to move ~~said the~~ first cutting die toward ~~said the~~ leadframe of ~~said the~~ plurality of leadframes.

7. (Currently Amended) The system of claim 6, wherein ~~said the~~ first die moving mechanism includes:  
a solenoid mechanism positioned for moving ~~said the~~ first cutting die.

8. (Currently Amended) The system of claim 1, wherein ~~said the~~ application apparatus further includes:  
a block positioned opposite ~~said the~~ first cutting die with ~~said the~~ first leadframe of ~~said the~~ plurality of leadframes positioned between ~~said the~~ block and ~~said the~~ first cutting die for inhibiting movement of ~~said the~~ first leadframe of ~~said the~~ plurality of leadframes upon movement of ~~said the~~ first cutting die against ~~said the~~ first leadframe of ~~said the~~ plurality of leadframes.

9. (Currently Amended) The system of claim 8, wherein ~~said the~~ block is sized for positioning opposite both ~~said the~~ first cutting die and ~~said the~~ second cutting die having a leadframe of ~~said the~~ plurality of leadframes positioned between ~~said the~~ block and ~~said the~~ first cutting die and having a leadframe of ~~said the~~ plurality of leadframes positioned between ~~said the~~ block and ~~said the~~ second cutting die for inhibiting movement of ~~said the~~ plurality of leadframes upon movement of ~~said the~~ first cutting die and ~~said the~~ second cutting die against ~~said the~~ leadframe of ~~said the~~ plurality of leadframes.

10. (Currently Amended) The system of claim 8, wherein ~~said the~~ block includes:  
heat apparatus for heating ~~said the~~ block, ~~said the~~ first increment contacting ~~said the~~ first leadframe of ~~said the~~ plurality of leadframes, and ~~said the~~ second increment contacting ~~said the~~ second leadframe of ~~said the~~ plurality of leadframes.

11. (Currently Amended) The system of claim 1, wherein ~~said~~ the application apparatus includes:  
a first guide for ~~said~~ the first length of adhesively coated material and a second guide for ~~said~~ the second length of adhesively coated material.

12. (Currently Amended) The system of claim 1, wherein ~~said~~ the first cutting structure and ~~said~~ the second cutting structure are connected.

13. (Currently Amended) The system of claim 1, wherein ~~said~~ the operation apparatus is configured for urging ~~said~~ the first cutting die and ~~said~~ the second cutting die to move separately and independently.

14. (Currently Amended) The system of claim 6, wherein ~~said~~ the plurality of leadframes includes a first leadframe, a middle leadframe and a last leadframe, and wherein ~~said~~ the indexing apparatus includes apparatus for urging ~~said~~ the first leadframe to the first location of ~~said~~ the at least a first portion of ~~said~~ the semiconductor die mounting site with ~~its~~ the first location positioned relative to ~~said~~ the semiconductor die mounting site to receive ~~said~~ the first increment upon activation of ~~said~~ the first source and with ~~its~~ the second location of the die mounting site thereof positioned to not be contacted by ~~said~~ the second cutting die, wherein ~~said~~ the controller is in electrical communication with ~~said~~ the first source and ~~said~~ the second source and is for electrically sending operation signals for activating ~~said~~ the first source to supply ~~said~~ the first length of adhesively coated material to ~~said~~ the first cutting structure and not activating ~~said~~ the second source.

15. (Currently Amended) The system of claim 14, wherein ~~said~~ the indexing apparatus includes apparatus for urging ~~said~~ the middle leadframe to have ~~its~~ a first location of ~~said~~ at least a first portion of ~~said~~ a semiconductor die mounting site thereof positioned relative to ~~said~~ the first cutting die for receiving ~~said~~ the first increment upon activation of ~~said~~ the first

source and ~~said~~ the first cutting die and thereafter for urging ~~said~~ the middle leadframe to have ~~its~~ a second location of ~~said~~ the semiconductor die mounting site thereof positioned relative to ~~said~~ the second cutting die for receiving ~~said~~ the second increment upon activation of ~~said~~ the second source and ~~said~~ the second cutting die, and wherein ~~said~~ the controller is for electrically sending operation signals for activating ~~said~~ the first source to supply ~~said~~ the first length of adhesively coated material to ~~said~~ the first cutting structure and for activating ~~said~~ the second source to supply ~~said~~ the second length of adhesively coated material to ~~said~~ the second cutting structure.

16. (Currently Amended) The system of claim 15, wherein ~~said~~ the indexing apparatus further includes apparatus for urging ~~said~~ the last leadframe to be positioned with ~~its~~ a second location of ~~said~~ a semiconductor die mounting site thereof positioned relative to ~~said~~ the second cutting die for receiving ~~said~~ the second increment upon activation of ~~said~~ the second source and ~~said~~ the second cutting die, with ~~its~~ a first location of ~~said~~ the semiconductor die mounting site thereof positioned to not be contacted by ~~said~~ the first cutting die, and wherein ~~said~~ the controller includes apparatus for electrically sending operation signals to activate ~~said~~ the second source to supply ~~said~~ the second length of adhesively coated material to ~~said~~ the second cutting structure and to not activate ~~said~~ the first source.

17. (Currently Amended) The system of claim 16, wherein ~~said~~ the indexing apparatus further includes apparatus for urging ~~said~~ the first leadframe, ~~said~~ the middle leadframe and ~~said~~ the last leadframe for moving continuously in sequence.

18. (Currently Amended) A system for applying adhesively coated material to a portion of a semiconductor die mounting site of a leadframe of a plurality of leadframes for semiconductor devices comprising:  
a first source for supplying a first length of adhesively coated material at a first location of ~~said~~ the portion of ~~said~~ the semiconductor die mounting site of ~~said~~ the leadframe of ~~said~~ the plurality of leadframes in a continuous manner;

a second source for supplying a second length of adhesively coated material at a second location of ~~said the~~ portion of ~~said the~~ semiconductor die mounting site of ~~said the~~ leadframe of ~~said the~~ plurality of leadframes in a continuous manner;

indexing apparatus for supplying ~~said the~~ plurality of leadframes for semiconductor devices in a leadframe-by-leadframe sequence at ~~a the~~ first location and ~~a the~~ second location of ~~said the~~ portion of ~~said the~~ semiconductor die mounting site, ~~said the~~ indexing apparatus including apparatus for urging ~~said the~~ plurality of leadframes in a desired position for application of adhesively coated material;

application apparatus for receiving ~~said the~~ plurality of leadframes for semiconductor devices in ~~a the~~ leadframe-by-leadframe sequence, for receiving ~~said the~~ first length of adhesively coated material at the first location of ~~said the~~ portion of ~~said the~~ semiconductor die mounting site and for receiving ~~said the~~ second length of adhesively coated material at the second location of ~~said the~~ portion of ~~said the~~ semiconductor die mounting site, ~~said the~~ application apparatus having cutting apparatus for cutting a first increment of ~~said the~~ first length of adhesively coated material and for applying ~~said the~~ first increment to the first location of ~~said the~~ portion of ~~said the~~ semiconductor die mounting site of ~~said the~~ leadframe of ~~said the~~ plurality of leadframes and for cutting a second increment of ~~said the~~ second length of adhesively coated material and for applying ~~said the~~ second increment to the second location of ~~said the~~ portion of ~~said the~~ semiconductor die mounting site of ~~said the~~ leadframe of ~~said the~~ plurality of leadframes after the leadframe of ~~said the~~ plurality of leadframes has been subsequently indexed to the second location, ~~said the~~ application apparatus including apparatus for receiving a plurality of leadframes connected together ~~one to another~~; and

control apparatus for electrical communication with ~~said the~~ indexing apparatus and for supplying operation signals thereto to supply ~~said the~~ plurality of leadframes for semiconductor devices in ~~said the~~ leadframe-by-leadframe sequence to ~~said the~~ application apparatus to position the first location of ~~said the~~ portion of ~~said the~~ semiconductor die mounting site and the second location of ~~said the~~ portion of ~~said the~~

semiconductor die mounting site to receive-~~said the~~ first increment and-~~said the~~ second increment,~~respectively, respectively;~~ for operating-~~said the~~ first source to cause-~~said the~~ first length of adhesively coated material to be selectively supplied to-~~said the~~ application apparatus when the first location of-~~said the~~ portion of-~~said the~~ semiconductor die mounting site is positioned to receive-~~said the~~ first-~~increment;~~ increment for operating ~~said the~~ second source to cause-~~said the~~ second length of adhesively coated material to be selectively supplied to-~~said the~~ application apparatus when the second location of-~~said the~~ portion of-~~said the~~ semiconductor die mounting site is positioned to receive-~~said the~~ second-~~increment;~~ increment and for operating-~~said the~~ cutting apparatus to selectively cut and apply-~~said the~~ first increment to the first location of-~~said the~~ portion of-~~said the~~ semiconductor die mounting site of-~~said the~~ leadframe of-~~said the~~ plurality of leadframes and to cut and apply-~~said the~~ second increment to the second location of-~~said the~~ portion of-~~said the~~ semiconductor die mounting site of-~~said the~~ leadframe of-~~said the~~ plurality of leadframes after-~~said the~~ leadframe of-~~said the~~ plurality of leadframes has been indexed to the second location.

19. (Currently Amended) The system of claim 18, wherein-~~said the~~ cutting apparatus includes:
- a first cutting structure having a first cutting die located at the first location, the first cutting die for movement relative to-~~said the~~ first cutting structure for receiving-~~said the~~ first length of-~~said the~~ adhesively coated material; and
  - operation apparatus positioned for moving-~~said the~~ first cutting die relative to-~~said the~~ first cutting structure for forming-~~said the~~ first increment and for urging-~~said the~~ first increment toward and against the first location of-~~said the~~ portion of-~~said the~~ semiconductor die mounting site of-~~said the~~ leadframe of-~~said the~~ plurality of leadframes for semiconductor devices.



20. (Currently Amended) The system of claim 19, wherein ~~said the~~ cutting apparatus further includes:

a second cutting structure having a second cutting die located at the second location, the second cutting die for movement relative to ~~said the~~ second cutting structure ~~configured for~~ receiving ~~said the~~ second length of ~~said the~~ adhesively coated material; ~~and~~  
wherein ~~said the~~ operation apparatus includes apparatus for moving ~~said the~~ second cutting die relative to ~~said the~~ second cutting structure for forming ~~said the~~ second increment and for urging ~~said the~~ second increment towards and against ~~said the~~ second location of ~~said the~~ portion of ~~said the~~ semiconductor die mounting site of ~~said the~~ leadframe of ~~said the~~ plurality of leadframes for semiconductor devices.

21. (Currently Amended) The system of claim ~~18~~ 20, wherein ~~said the~~ operation apparatus further includes:

a first die moving mechanism positioned relative to ~~said the~~ first cutting die for urging ~~said the~~ first cutting die to move toward ~~said the~~ leadframe of ~~said the~~ plurality of leadframes, ~~said the~~ first die moving mechanism being connected to ~~said the~~ control apparatus for receiving ~~said the~~ operation signals therefrom to cause ~~said the~~ first die moving mechanism to move ~~said the~~ first cutting die toward ~~said the~~ leadframe of ~~said the~~ plurality of leadframes.

22. (Currently Amended) The system of claim 21, wherein ~~said the~~ application apparatus further includes:

a block positioned opposite ~~said the~~ first cutting die with ~~said the~~ leadframe of ~~said the~~ plurality of leadframes positioned between ~~said the~~ block and ~~said the~~ first cutting die for inhibiting movement of ~~said the~~ leadframe of ~~said the~~ plurality of leadframes upon movement of ~~said the~~ first cutting die against ~~said the~~ leadframe of ~~said the~~ plurality of leadframes.

23. (Currently Amended) The system of claim 22, wherein ~~said~~ the block includes apparatus for positioning opposite both ~~said~~ the first cutting die and ~~said~~ the second cutting die having ~~said~~ the leadframe of ~~said~~ the plurality of leadframes positioned between ~~said~~ the block and ~~said~~ the first cutting die and having a leadframe of ~~said~~ the plurality of leadframes positioned between ~~said~~ the block and ~~said~~ the second cutting die for inhibiting movement of ~~said~~ the plurality of leadframes upon movement of ~~said~~ the first cutting die and ~~said~~ the second cutting die against ~~said~~ the leadframe of ~~said~~ the plurality of leadframes.

24. (Currently Amended) The system of claim 23, wherein ~~said~~ the block further includes:  
heat apparatus for heating ~~said~~ the block, ~~said~~ the first increment, and ~~said~~ the second increment upon urging of same against ~~said~~ the leadframe of ~~said~~ the plurality of leadframes.

25. (Currently Amended) The system of claim ~~18~~ 20, wherein ~~said~~ application the cutting apparatus includes apparatus for receiving a plurality of leadframes including a first leadframe, a middle leadframe and a last leadframe, and wherein ~~said~~ the indexing apparatus includes apparatus for urging ~~said~~ the first leadframe to a first position with ~~the~~ a first location of ~~said~~ a portion of ~~said~~ the semiconductor die mounting site thereof positioned relative to ~~said~~ the first cutting die for receiving ~~said~~ the first increment upon activation of ~~said~~ the first source and having ~~the~~ a second location of ~~said~~ the portion of ~~said~~ the semiconductor die mounting site thereof positioned to not be contacted by ~~said~~ the second cutting die, wherein ~~said~~ the control apparatus is for electrical communication with ~~said~~ the first source and ~~said~~ the second source and for electrically sending operation signals for activating ~~said~~ the first source to supply ~~said~~ the first length of adhesively coated material to ~~said~~ the first cutting structure and for not activating ~~said~~ the second source.

26. (Currently Amended) The system of claim ~~18~~ 25, wherein ~~said~~ the indexing apparatus includes apparatus configured for urging ~~said~~ the middle leadframe to have ~~its~~ a first

location of ~~said~~ a portion of ~~said~~ a semiconductor die mounting site positioned thereof relative to ~~said~~ the first cutting die for receiving ~~said~~ the first increment upon activation of ~~said~~ the first source and ~~said~~ the first cutting die and thereafter for urging ~~said~~ the middle leadframe to have ~~its~~ a second location of ~~said~~ the portion of ~~said~~ the semiconductor die mounting site thereof positioned relative to ~~said~~ the second cutting die for receiving ~~said~~ the second increment upon activation of ~~said~~ the second source and ~~said~~ the second cutting die, and wherein ~~said~~ the control apparatus is for electrically sending operation signals for activating ~~said~~ the first source for supplying ~~said~~ the first length of adhesively coated material to ~~said~~ the first cutting structure and for activating ~~said~~ the second source for supplying ~~said~~ the second length to ~~said~~ the second cutting structure.

27. (Currently Amended) The system of claim 26, wherein ~~said~~ the indexing apparatus further includes apparatus for urging ~~said~~ the last leadframe to be positioned with ~~its~~ a second location of ~~said~~ a portion of ~~said~~ the semiconductor die mounting site thereof positioned relative to ~~said~~ the second cutting die for receiving ~~said~~ the second increment upon activation of ~~said~~ the second source and ~~said~~ the second cutting die and with ~~its~~ a first location of ~~said~~ the portion of ~~said~~ the semiconductor die mounting site thereof positioned for not contacting any portion thereof by ~~said~~ the first cutting die, and wherein ~~said~~ the control apparatus is configured for electrically sending operation signals for activating ~~said~~ the second source to supply ~~said~~ the second length of adhesively coated material to ~~said~~ the second cutting structure and for not activating ~~said~~ the first source.